REMARKS

This Reply is responsive to the final office action of November 16, 2007

(hereinafter "Office Action")[1] and is also the submission under an RCE filed

concurrently herewith. This Reply and RCE are also filed concurrently with the filing of

a petition to revive because the application, which had a statutory period for response

expiring on May 16, 2008, went abandoned for non-response.

Claims 1-44 were presented for examination and were rejected. No claims are

added or canceled. Claims 1, 17, 18, 19, 34, 35, 36, 39, 43 and 44 are independent claims

and all are amended. No new matter is added and support for the claim amendments is to

be found in the application as filed, as detailed below. Claims 1-44 are pending.

Claims 1, 4-6, 11, 12, 16-19, 21-23, 27-29 and 33-38 are rejected under 35 U.S.C.

§102(a) as being anticipated by Menon et al. (U.S. H2079, hereinafter "Menon"). Claim

2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Menon in view of

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[1] The Office Action may contain a number of statements characterizing the cited references and/or the
claims which Applicant may not expressly identify herein. Regardless of whether or not any such
statement is identified herein, Applicant does not automatically subscribe to, or acquiesce in, any such
statement. Further, silence with regard to rejection of a dependent claim, when such claim depends,
directly or indirectly, from an independent claim which Applicant deems allowable for reasons
provided herein, is not acquiescence to such rejection of that dependent claim, but is recognition by
Applicant that such previously lodged rejection is moot based on remarks and/or amendments
presented herein relative to that independent claim.

Hunter et al. (U.S. 4,751,697, hereinafter "Hunter"). Claims 3, 13-15, 20, 30-32, 43 and

44 are rejected under 35 U.S.C. §103(a) as being unpatentable over Menon in view of

Coombes et al. (U.S. 6,650,908, hereinafter "Coombes"). Claims 7, 8, 24 and 25 are

rejected under 35 U.S.C. §103(a) as being unpatentable over Menon. Claims 10 and 26

are rejected under 35 U.S.C. §103(a) as being unpatentable over Menon in view of

Wilson (U.S. 5,185,796, hereinafter "Wilson"). Claims 39-42 are rejected under 35

U.S.C. §103(a) as being unpatentable over Menon in view of Coombes further in view of

Hunter et al. (U.S. 4,751,697, hereinafter "Hunter").

Applicant respectfully traverses these rejections because principal reference

Menon is deficient. It fails to disclose or suggest all claim limitations in independent

claims 1, 17-19 and 34-36 and does not disclose or suggest the limitations in independent

claims 39, 43 and 44 for which it was cited. Consider, e.g., claim 1:

> A patch panel system, comprising: an interface unit that includes a
> plurality of ports configured to connect to a plurality of user devices, the interface
> unit being configured to: receive one or more analog signals from a user device of
> the plurality of user devices via a port of the plurality of ports, generate a packet
> from the one or more analog signals, and transmit the packet; and a radio unit
> configured to: receive the packet, convert the packet to a <u>depacketized radio
> signal representing only extracted payload bits,</u> and transmit the <u>depacketized
> radio signal representing only extracted payload bits</u> over a radio channel. (Claim
> 1, emphasis added)

Claim 1, as currently amended, clearly calls for a patch panel system which comprises,

interalia, a radio unit which is configured to *interalia* convert a packet to *a depacketized*

radio signal representing only extracted payload bits and transmit that depacketized

radio signal representing only extracted payload bits over a radio channel. Support for

this amendment can be found in Applicant's specification, as filed, at least on page 10,

paragraphs [0034] and [0036].

In the Office Action, page 3, the Examiner applies Menon's element number 64

(Menon, Fig. 2) against Applicant's radio unit (Applicant's Fig. 1, 130-1, 130-2 or 130-

3). In other words, Menon's wireless subsystem 64 is asserted by the Examiner as being

allegedly equivalent to Applicant's radio, e.g., radio unit 130-1. That being the case, it

follows that the Examiner would view Menon's transmission 22 as being equivalent to

Applicant's radio transmission (that which is transmitted from, or received by, e.g.,

Applicant's antenna 135-1). Indeed, the Examiner makes this association: "The radio

unit of Menon et al. receives the packet and transmits the signal wirelessly over a radio

channel (Column 7, lines 39-41)." (Office Action, page 3) This section of Menon

(expanded herein to include three immediately-preceding lines) actually says:

> "Wireless subsystems 64,66 may use a circuit-switched protocol, a packet
> switched protocol, or both to communicate over wireless interface 22. Wireless
> subsystems 64, 66 may each comprise any suitable device operable to manage one
> or more communications channels over wireless interface 22." (Menon, col. 7,
> lines 36-41).

Thus, Menon may teach wireless communication using circuit-switched or packet

switched protocols but Menon does not teach a radio unit configured to, *inter alia*:

"convert the packet to a depacketized radio signal representing only extracted payload

bits, and transmit the depacketized radio signal representing only extracted payload bits

over a radio channel" as recited in claim 1 for the following reasons.

Since a packet requires at least a header and a payload, Menon may teach either:

(1) a packet-switched wireless transmission which provides a packetized wireless signal inherently containing more than just payload bits which does not read on these limitations of claim 1; or

(2) a circuit-switched wireless signal comprising either

(a) more than just payload bits which does not read on these limitations of claim 1 or,

(b) only payload bits where such signal could then not be a packet in the first place in which case it cannot be converted from the recited packet to a depacketized radio signal as called-for in these limitations of claim 1.

Therefore, regardless of how one views Menon, it is clear that it cannot be read on these claim limitations. Applicant's arguments are elaborated-upon below in the context of responding to the Office Action's "Response to Arguments."

(I) Menon does not *inherently* convert its packet to a depacketized signal.

The Office Action, pg 2, responds to Applicant's previously-submitted arguments and advises that the Examiner is not persuaded. It first says that Menon: "*inherently* converts the packet to a depacketized radio signal in order to transmit the radio signal over a radio channel." (emphasis added) Applicant respectfully disagrees with this statement for several reasons.

First of all, throughout its disclosure, Menon expressly discusses the precise opposite of inherently depacketizing a signal that is being wirelessly transmitted. That is, it affirmatively presents, in detail, the *wireless transmission of packets*. Clearly, teaching

wireless transmission of packets is an express <u>teaching away</u> from the notion of inherently depacketizing the packet before transmitting it. Accordingly, Applicant submits that Menon does not *inherently* convert a packet to a depacketized radio signal in order to transmit that radio signal over a radio channel.[2]

Moreover, inherency requires certainty. Since technology for transmitting packetized radio signals exists, that reality suggests that one need not *necessarily* convert a packet to a depacketized signal in order to wirelessly transmit that signal. For example, "packet radio" and "AlohaNet" are technologies supporting radio transmission of packets which were developed in the 1970's. Applicant respectfully refers the Examiner to sources of information on these subjects such as, for example, "Wikipedia - the free encyclopaedia" on the web at http://en.wikipedia.org/wiki/Packet_radio and http://en.wikipedia.org/wiki/ALOHAnet.

Applicant submits that these references teach radio signals in packet format and, since radio signals can have a packet format, it cannot be concluded that Menon <u>necessarily</u> depackitizes its packets for radio transmission purposes. Accordingly, it cannot be concluded that Menon *inherently* teaches depacketizing its packetized signals for radio transmission purposes. To the contrary, in view of "packet radio" and "AlohaNet" Applicant submits that mere conversion of signals comprised of binary (digital) bits into modulated radio frequency (RF) signals for radio transmission purposes

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[2] Menon discusses "depacketizing" but only in connection with readying a previous wirelessly-transmitted *packet* for delivery to a telephone, fax machine, etc., by first converting it to an analog signal destined for that equipment. *See* Menon, e.g., col. 9, lines 16-22. Thus, the wirelessly-transmitted signal (packet) is, and remains, "packetized" during its wireless-transmission state.

is <u>not</u> equivalent to inherently depacketizing those signals, but merely putting the signals into a packet format that can be wirelessly radio transmitted.

MPEP 2112(IV) sets forth the legal standard for a proper rejection relying upon inherency of disclosure in a reference. "The fact that a certain result or characteristic <u>may</u> occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter <u>is</u> <u>necessarily present</u> in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' "(emphasis added) Therefore, applying this legal standard to the above facts, one cannot reasonably conclude that Menon inherently depacketizes its wireless signals. Applicant respectfully requests that the Examiner reconsider the Office Action position in this regard.

(II) A packet can be transmitted wirelessly in a packet format.

The statement in the Office Action (pg 2) that "A packet in its packet form, cannot be transmitted wirelessly." is also respectfully refuted because a "packet form" need not necessarily be a "digital-bit" or "binary-bit" packet form. Indeed, there are

various kinds of digital modulation such as Amplitude-Shift Keying (ASK), Frequency-

Shift Keying (FSK) and Phase-Shift Keying (PSK) that can be used. For example, in

ASK, the amplitude of the sinusoidal carrier is a function of the binary bit value, and is

changed only in response to binary bit value changes, while the carrier's frequency and

phase are held constant. Using ASK, a "1" bit is transmitted by a carrier having a first

carrier wave amplitude and a "0" bit is transmitted by the same carrier having a second

carrier wave amplitude. For example, the second amplitude can be 50% of the first

amplitude or could even be a zero amplitude as in "on-off keying".

Although the concept of a binary-bit packet with its binary-bit header and binary-

bit payload may be the more familiar view, whereby the packet may be visualized as a

string of "1's" and "0's", a packet can also be a modulated sinusoidal carrier as discussed

above because it would contain the same substantive information as that in the binary-

formatted packet. Mere conversion from one form of packet (digital-bit) to another form

of packet (modulated-sinusoid) does *not* result in "depacketizing." The sinusoidally-

formed packet, with sinusoidally-formed header and payload, is a packet. Therefore,

Applicant respectfully disagrees with the statement in the Office Action (pg 2) that "A

packet in its packet form, cannot be transmitted wirelessly." Applicant respectfully

requests that the Examiner reconsider the Office Action position in this regard.

(III) A modulated radio signal is not necessarily a depacketized radio signal.

For the reasons given above, Applicant also respectfully disagrees with the Office

Action's interpretation of a depacketized radio signal as expressed in another statement in

the Office Action (pg 2),namely: "The packet must be modulated into a radio signal,

which is interpreted as a depacketized radio signal." Although the digital-bit packet may

need to be modulated into a radio signal for it to be wirelessly transmitted, that, by itself,

does not support the Office Action interpretation that that modulated radio signal is a

depacketized radio signal. That modulated radio signal retains its packet information.

Indeed, Applicant has shown above that a modulated radio signal, such as that produced

by, e.g., ASK modulation, retains its packet information in modulated radio frequency

(RF) format instead of on-off binary format. Applicant respectfully requests that the

Examiner reconsider the Office Action interpretation in this regard.

(IV) Menon does not teach wirelessly transmitting *only extracted payload bits*.

Finally, in addition to all of the above discussion of the differences between the

disclosure of Menon and Applicant's claim 1, there clearly is no disclosure or suggestion

in Menon to wirelessly transmit *only extracted payload bits*, whether packet-switched or

circuit-switched protocols are being used.

First of all, in contrast to the large amount of detail disclosed in Menon about its

packet-switched wireless transmission process wherein wireless packet-transmission is

taught, there is virtually no detail disclosed in Menon about its proposed circuit-switched

protocol and how it may be implemented. Furthermore, *arguendo*, if the Examiner were

to present a hypothetical argument that Menon's circuit-switched protocol operates with

signals that do not have headers and have only payload bits (and there is no information

in Menon to support that hypothetical position), then Menon would still fail to meet the

claim language because those signals would not be packets which, therefore, could not be converted to depacketized signals, as required by the claim language. Packets require at least headers and payloads.

Moreover, regardless of which protocol is being used, not only is there no discussion or suggestion in Menon of *extracting* payload bits from a packet for purposes of wirelessly transmitting only those extracted payload bits as required by the claim, the term "payload" does not even appear once in Menon!

Accordingly, for any or all of the above reasons, Menon does not disclose or suggest a radio unit configured to, *inter alia*: "convert the packet to a depacketized radio signal representing only extracted payload bits, and transmit the depacketized radio signal representing only extracted payload bits over a radio channel" as recited in claim 1.

MPEP § 2131 states that to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the …claim." *See Richardson v. Suzuki Motor Co.,* 868 F. 2d 1226, 1236, 9USPQ2d 1913, 1920 (Fed. Cir. 1989). In this instance, the reference does not teach Applicant's radio unit as recited in claim 1 for at least the reasons given above. On this basis alone, the 35 U.S.C. §102(a) rejection of claim 1 should be withdrawn and the claim allowed. In addition, there may be other differences between Menon and Applicant's claim 1.

All of the other independent claims, which have been rejected either as being anticipated by Menon or as being unpatentable over Menon in view of other references, have been amended similarly to currently-amended claim 1. Each of the other applied references, namely Hunter, Coombes, and Wilson, was cited for reasons unrelated to this deficiency in teaching reference Menon and, therefore, does not cure this deficiency in Menon. Therefore, all of the other independent claims, namely claims 17, 18, 19, 34, 35 36, 39, 43 and 44 are allowable for reasons given above with respect to claim 1.

All of the dependent claims are likewise allowable, at least for reasons based on their dependencies from allowable base claims.

In view of the above, Applicant respectfully requests that the rejections of all claims be withdrawn and the claims allowed.

Applicant reserves its rights to present additional arguments against Menon relative to other independent and dependent claim elements, if the Examiner does not pass this case to issue.[3]

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[3] As Applicant's remarks with respect to the Examiner's rejections are sufficient to overcome these rejections, Applicant's silence as to assertions by the Examiner in the Office Action or certain requirements that may be applicable to such rejections (e.g., whether a reference constitutes prior art, motivation to combine references, assertions as to dependent claims, Official Notice, etc.) is not a concession by Applicant that such assertions are accurate or such requirements have been met, and Applicant reserves the right to analyze and dispute such assertions/requirements in the future.

CONCLUSION

Reconsideration and allowance are respectfully requested based on the above amendments and remarks.

If there are any remaining issues or if the Examiner believes that a telephone conversation with Applicant's attorney would be helpful in expediting the prosecution of this application, the Examiner is invited to call the undersigned at 508-625-1323

To the extent necessary, a petition for extension of time under 37 C.F.R. § 1.136 is hereby made, the fee for which should be charged to deposit account number 07-2347. Please charge any other fees due, or credit any overpayment made to that account.

Respectfully submitted,

Date: August 1, 2008

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